

AMENDMENTS TO THE CLAIMS

This listing of claims will replace all prior versions and listings of claims in the application:

Listing of Claims:

1-20 (Canceled).

21- 22 (**Cancelled**)

23. (Previously Presented) A radial slaving method for a device for reproducing information from an optical disc, in which the information stored on the disc in the form of alterations arranged along predetermined tracks of the disc is explored by a laser beam, which converges at a spot on the optical disc and results in a beam emerging from the disc by reflection or transmission, the device being equipped with a multi-photodiode far-field detection system for detecting the emergent light beam, the method comprising:

combining read signals of the photodiodes of the detection system so as to form four read subsystems having two pairs of subsystems, the subsystems of each pair being arranged on either side of a first axis parallel to the image of the axis of the track being explored and having photodiodes of a four-quadrant detector, the pairs of subsystems being arranged on either side of a second axis perpendicular to the first axis, the first and second axes being axes of symmetry for the detection system, wherein combining the read signals of the photodiodes takes the difference between the read signals of two subsystems belonging to different pairs in order to form a read signal along a first diagonal of the detection system and a read signal along a second diagonal of the detection system; and

phase-comparing the signals obtained by each of the two subsystems in order to obtain a radial error signal substantially proportional to the radial tracking, said step of phase-comparing the read signals along the first and second diagonals and performing a cross-correlation between each read signal of one diagonal and the signal of the other diagonal, to which a predetermined delay is assigned.

24. (Previously Presented) The method according to Claim 23, wherein the predetermined delay is selected as a function of the maximum frequency of the read signals and a modulation depth of the optical disc.

25. (Original) The method according to Claim 23, wherein the predetermined delay is selected to be less than the clock period of the information to be read.

26. (Previously Presented) The method according to Claim 21, further comprising a rapid pre-correction step, which dynamically adjusts the delays of the read signals along the first and second diagonals, in channels for constructing the readout signal, as a function of the radial error signal.

27. (Previously Presented) A radial slaving method for a device for reproducing information from an optical disc, in which the information stored on the disc in the form of alterations arranged along predetermined tracks of the disc is explored by a laser beam, which converges at a spot on the optical disc and results in a beam emerging from the disc by reflection or transmission, the device being equipped with a multi-photodiode far-field detection system for detecting the emergent light beam, the method comprising:

combining read signals of the photodiodes of the detection system so as to form four read subsystems having two pairs of subsystems, the subsystems of each pair being arranged on either side of a first axis parallel to the image of the axis of the track being explored, and arranged on either side of a second axis perpendicular to the first axis, the first and second axes being axes of symmetry for the detection system,

wherein combining the read signals of the photodiodes takes the difference between the read signals of two subsystems belonging to different pairs in order to form a read signal along a first diagonal of the detection system and a read signal along a second diagonal of the detection system; and

phase-comparing the signals obtained by each of the two subsystems in order to obtain a radial error signal substantially proportional to the radial tracking,

rapid pre-correcting to dynamically adjust the delays of the read signals along the first and second diagonals, in the channels for constructing the readout signal, as a function of the radial error signal, wherein said rapid pre-correction step:

- filters the radial error signal in order to keep only the high-frequency components of the signal; and
- determines an inverse variation of the delays as a function of the high-frequency component values, in order to minimize the phase-shift effects of the readout signal.

28. - 37. (Canceled)